

SKAGIT RIVER CED RETROFIT

APRIL 4, 2005

INTRODUCTION

The Skagit River retrofit site is along State Route (SR) 20 at Mile Post (MP) 100.7. This portion of SR 20 is between the towns of Rockport and Marblemount. SR 20 is a main transit route for local, commercial, and tourist traffic.

THE CED PROBLEM

This CED site has experienced repetitive toe slope failure problems and lateral flood related bank erosion for well over a decade. Extensive armoring and the placement of Jersey barriers upstream of the current problem site have been used on numerous occasions to address erosion issues upstream. In recent years however, the erosion problem appears to have shifted downstream with the result that the river is eroding an unprotected section of bank, destroying the riparian corridor and threatening the highway. In places it is as near as five feet from the edge of pavement.

An emergency project shored up a failing section of bank in November 2004, just in time to ward off rising flood waters, which would have washed out the road. The repair consisted of a roughened rock toe, designed in accordance with the Integrated Streambank Protection Guidelines (ISPG). It is recognized however that the repair was not adequate to serve as the long term solution to what is actually a reach based problem.

FISH UTILIZATION & HABITAT AVAILABILITY

The Skagit River system near the CED site supports coho, fall chum, pink, sockeye, spring Chinook, summer Chinook, summer steelhead, winter steelhead, and bull trout. The spring

Chinook, summer Chinook, and winter steelhead status is considered depressed. Bulltrout are listed as threatened under the federal Endangered Species Act.

This reach of the Skagit River is well known for its value as salmon spawning and rearing habitat. Therefore, the design solution must incorporate habitat enhancement elements.

ONGOING WORK

A Reach Analysis is currently being prepared by WSDOT's CED program. The ISPG concepts (<http://wdfw.wa.gov/hab/ahg/ispgdoc.htm>) will be used to address the overall project objectives. The analysis will help the program better understand the relationship between previous upstream bank armoring work and the current erosion problem. It is anticipated that the outcome of the project will result in meeting the necessary requirements to protect SR 20 and provide environmental enhancements to this reach of the river.



Figure 1. Placing rip-rap along SR 20.



Figure 2. Placing rip-rap along SR 20.



Figure 3. Rip-rap along SR 20.